

### Claims

1. An isolated DNA molecule comprising a nucleotide sequence encoding a polypeptide having human HDGF5 protein activity, wherein said nucleotide sequence shares at least 70% homology to the nucleotide sequence of nucleotides 5-910 in SEQ ID NO: 1, or said nucleotide sequence can hybridize to the nucleotide sequence of nucleotides 5-910 in SEQ ID NO: 1 under moderate stringency.
2. The DNA molecule of Claim 1 wherein said nucleotide sequence encodes a polypeptide comprising the amino acid sequence of SEQ ID NO: 2.
3. The DNA molecule of Claim 1 wherein said nucleotide sequence comprises nucleotides 5-910 in SEQ ID NO: 1.
4. An isolated HDGF5 polypeptide comprising a polypeptide having the amino acid sequence of SEQ ID NO: 2, its conservative variants, its active fragments, and its active derivatives.
5. The polypeptide of Claim 4 wherein said polypeptide is a polypeptide having the amino acid sequence of SEQ ID NO: 2.
6. A vector containing the DNA molecule of Claim 1.
7. A host cell transformed by the vector of Claim 6.
8. A method for producing a polypeptide having the activity of HDGF5 protein, which comprises the steps of:
  - (a) forming an expression vector comprising the nucleotide sequence encoding the polypeptide having the activity of HDGF5 protein, wherein said nucleotide sequence is operably linked with an expression regulatory sequences, and said nucleotide sequence shares at least 70% homology to the nucleotide sequence of positions 5-910 in SEQ ID NO: 1;
  - (b) introducing the vector of step (a) into a host cell, thereby forming a recombinant cell of HDGF5 protein;
  - (c) culturing the recombinant cell of step (b) under the conditions suitable for expression of HDGF5 polypeptide;
  - (d) isolating the polypeptides having the activity of HDGF5 protein.

9. An antibody specifically bound with the HDGF5 polypeptide of Claim 4.
10. A probe wherein it comprises about 8-100 consecutive nucleotides of the DNA molecule shown in SEQ ID NO:1.